

NEW ROYAL EXCHANGE.—The exterior is rapidly approaching completion, the scaffolding having been already removed from the north and south fronts. The portico, which is the distinguishing characteristic of the west front, is now nearly finished, with the exception of the sloping cornice of the pediment, which is to be elaborately decorated with sculpture from the chisel of Mr. Westmacott. It is expected that before the ensuing spring, the whole area between this front and the Mansion House, now occupied by a cluster of old houses, will have been thrown open, and distinguished by the erection of the Wellington statue, by the late Sir Francis Chantrey. The general masses of the north and south fronts are complete, with the exception of the ornamental carving, and the insertion of the shop fronts and mezzanin windows. The east front is in the same condition with the last, excepting that the cupola or tower has not yet attained its intended height. The old houses in Freeman's court are now undergoing demolition, and the space will be converted into a wide thoroughfare. The church of St. Benet Fink, at the north end, is to be preserved and adorned with a new west front. The great quadrangle, consisting of two grades, is completed with the exception of the decorative sculpture, and it is expected that the intentions of the Graham Committee to open the structure early next summer will be fully realised.

DOVER TERMINUS OF THE SOUTH-EASTERN RAILWAY.—The railway operations at the Haycliff Bay Viaduct and Archbifort Tunnel are fast approaching to a "terminus." The timber portion of the viaduct is within a few feet of its entire length; and the range of cliffs in its rear is about to be scraped down to a uniform incline, similar to the cliff at the entrance of Shakespeare Tunnel. The trains passing along the viaduct will be screened from the sprays of the sea by a timber fence or parapet along its side, and on the bottom by the timber platform. The beautifully-finished semi-circular arches of the tunnel are completed, but at present blocked up, and concealed by exterior mining operations. The approach walls at both ends have reached their half height. The brickwork of these works, like that throughout the whole line, is much to be admired, both for soundness and execution; and, in this instance, there are not only the walls of a tunnel, but also those of a fortress, and great security is rendered by their strong and massive masonry, some of them being, we perceive, ten feet thick. The levelling of the area for the terminus is going on with spirit. The seaward lines are defended by a fence formed of three-inch plank, supported by a row of cast-iron piles driven into the shingle to a depth of 11 or 12 feet. Many fears have been expressed as to the capability of this fence to resist the action of the sea; but, as its protection is to consist of a distribution of groins projecting seaward, and at an angle so as to retain a permanent thickness of shingle seaward of it, no apprehensions of danger from the inroads of the sea at this point are now to be entertained.—*Canterbury Journal*.

COLCHESTER TOWN HALL.—On the 13th ult. Roger Nunn, Esq., Mayor of Colchester, laid the foundation stone of the elegant new Town Hall, which the public spirit of the borough is about to raise on the site of the venerable, but inconvenient, dark and dark edifice which has so long disfigured the principal street of Colchester. At twelve o'clock the corporate authorities, the Masonic Lodges of Colchester, with visitors from all parts of the country, the subscribers, and all who were to take part in the proceedings of the day, assembled at the Castle, where the arrangements were made, and the procession moved towards the site of the building, which is situated near the centre of High-street. The parties having been arranged round the stone, one of the Masonic fraternity presented to the Mayor the collection of coins of the present reign, in a glass, which he deposited in the cavity prepared for them; the mortar was then laid on, and another Mason advancing, presented the Chief Magistrate with a beautiful silver trowel, with which the Mayor spread the mortar, and the stone was then lowered to its bed; it is part of the eastern corner of the front of the building, six or eight feet from the ground, and bears this inscription: "This stone was laid by Roger Nunn, Esq., M.D., Mayor, September 13, 1843." An engraving of this building appeared in No. 13 of *THE BUILDER*.

The Berlin monument, to commemorate the duration of peace for a quarter of a century in Prussia, of which the first stone was laid three years ago, was uncovered on the 3rd of August last. The shaft is a monolith of granite, twenty-two feet high, standing on a pedestal, with a colossal bronze statue of Victory, by Rauch, on its summit. The capital is Corinthian, with eagles on the side, and the whole monument is fifty-eight feet high. The new Museum, in the same city, is rapidly advancing towards completion. One large room will be especially devoted to Etrurian art, of which Mr. Waagen has formed a large collection.

NORWICH CATHEDRAL.—Our noble Cathedral has assumed a new appearance; and its spire is converting into an observatory, for the purposes of the trigonometrical survey, now making throughout the kingdom, by order of the Board of Ordnance. A party of sappers and miners have arrived, and have commenced their works, by carrying a scaffolding up to the top of the spire, whence they will take their observations. The weather-cock is again taken down, and its place will, for the present, be supplied by the instruments, &c. used in the survey. Now that the scaffolding is again replaced, and the vane dismounted, we hope the opportunity of removing the heavy finial recently placed there will not be neglected.—*Norfolk Chronicle*.

COLOGNE CATHEDRAL.—The following remarks respecting the doings at Cologne are from a correspondent:—"Who could pass Cologne, and not look at its cathedral, though for the thousandth time? Now one looks hopefully, for the choir is rapidly approaching completion—the frescos and the gilding being three parts finished, and all the splendid windows cleaned; and the nave, and one of the transepts that are to be, show emphatic signs of growth. Whatever the result may be, the church is now a hive of workmen. The Freemasons are said to have bound themselves to lay a yearly offering on the shrine of the Three Kings—a journal is published exclusively devoted to the proceedings of the committee; and those who mark from year to year the awakening in action of this noble and earnest people, as testified in their public works, may be excused for dreaming of a day, when the Gothic Cathedral of the world will stand forth in the fulness of all its glory.—*Athenaeum*.

THE ROUND CHURCH AT CAMBRIDGE.—The committee for conducting the restoration of the Church of the Holy Sepulchre have just reported progress. The church is celebrated as the oldest of the four round churches (built in imitation of the Holy Sepulchre at Jerusalem) now remaining in England, having been consecrated in the year 1101. Part of the building fell in 1841, and prompt measures were rendered necessary for its preservation. The walls have been carefully rebuilt with the original materials upon a solid foundation of concrete, the fine western doorway restored, and the windows reduced to their pristine condition, and filled with stained glass, some of which is old, and of the remainder part was executed by Mr. Willement, and part by Mr. Wailes, of Newcastle. Mr. Wailes's glass is superior in warmth and brilliancy of tincture to any specimens of modern art which have fallen under our notice. The circular nave is covered externally by a conical capping of Northamptonshire slate, and internally by a vaulted dome. Encaustic tiles will shortly fill the whole area, and throw back the rich and varied hues which pour down upon them through the tinted glass. The architect's estimate for the completion of the work is £1,206l. 10s. The amount paid for work already done is 2,311l. 2s. 7d. About 2,000l. have been received in subscriptions.

A NEW PAVEMENT.—A newly-invented wood pavement has been laid down opposite the residence of the mayor, in the Rue de l'Écu. It is a combination of wood and asphalt, possessing seemingly the advantages of both, without the inconvenience of either, being impervious to water, free from danger to horses, and costing 25 per cent. less for carriage roads, and as much as 50 less for foot pavements. Should it answer, we hear it is talked of laying it down from hence to Amiens, and running locomotive carriages upon it. It is the invention of Colonel Sir J. Lilly. The cost is said to be about 3s. a yard.—*Boulogne Gazette*.

A CHRAP STUCCO.—One hundred parts of quick lime are to be slaked by degrees, until reduced to the consistence of cream; five parts of white clay, previously diluted with water to a similar consistence, are then to be intimately mixed with the lime, and allowed to stand in a tub or other vessel for twenty-four hours, occasionally stirring it up. Any kind of colour may now be communicated to it; but two parts of yellow ochre added to the mixture is found to give it an agreeable and durable tint. Buildings much exposed to wind and rain, which were covered with this cement, were not in the least injured at the expiration of two years.

It is remarkable that the preparation of iron, called steel, may either be soft, like pure iron, or by being heated and suddenly cooled, in the process called tempering, may become nearly as hard as the diamond. The discovery of this fact is perhaps second in importance to few discoveries which man has made; for it has given him all the edge-tools and cutting-instruments by which he now moulds every other substance to his wishes. A savage will work for twelve months, with fire and sharp stones, to fell a great tree and to give it the shape of a canoe, where a modern carpenter, with his tools, could accomplish the object in a day or two.

MANOR HOUSE, WORKSOP.—This noble building being under sentence of demolition, the work of destruction is now proceeding rapidly; for some time a number of workmen have been engaged in razing it to the ground, but so substantial is the masonry, and compact the building, it is with the greatest difficulty that the men are enabled to proceed in their work. A portion of the north side of the house, together with the entrance and flag-stone surrounding the base of the building, is entirely removed and taken away. On the south side adjoining the noble staircase, where the walls are of an immense thickness, attempts have been made during the past week to blow up that portion of the building with gunpowder, but owing to the immense weight and strength of the walls, it did not succeed, to the disappointment of numbers of spectators, including several noblemen and gentlemen from the neighbourhood, who had assembled to witness the operation. On a succeeding day another attempt was made with more success, when a considerable portion of the wall was levelled with the ground, but not near to so great an extent as was anticipated. With the exception of that portion of the house adjoining the quadrangle, the whole of this once magnificent building is doomed to utter destruction.—*Doncaster Gazette*.

The new church of St. Luke, in the vicinity of the Great Western Cotton Works, Bristol, was consecrated last week. The church of St. Luke is designed after and intended to resemble in style those of the 13th century, in which more detail and ornament can be dispensed with than in any other style. The tower rises about 100 feet from the ground. The interior is 100 feet long and 46 feet broad, and provides free sittings for 750 persons, and 40 in private pews; and in the west gallery there is accommodation for 230 children: making in the aggregate number, 1026. The floor of the church is supported on brick arches, turned upon strong cast-iron girders, and under the church are spacious schools for 700 children, with rooms for schoolmaster and mistress, and large committee-room, together with convenient offices, and a plentiful supply of water. The cost of erecting the church, including warm-air stove, iron railing and gates, boundary walls, &c., will amount to about 2,700l.

Hereford Cathedral is now fast proceeding under the hands of its restorers; a large number of masons are employed upon it.

EXTRAORDINARY BRIDGES.—We read, in a letter from Venice:—"The construction of the bridge, which is to connect this city with the main land, is urged on with great activity. Of 34 arches, which it is to have, 20 are already terminated, and, to all appearances, this gigantic monument will be entirely finished before the end of next year."

An experiment of a novel character is now in progress on the King's Bastion, Portsmouth, in which materials of very opposite natures will be tested, both as regards utility and economy, under circumstances precisely similar. By direction of the Ordnance Department, a gun platform, about 120 feet long, and about 20 feet wide, has been divided into four equal compartments, on the first of which is laid a thick and apparently firm sheet of Bastenne asphaltum; on the second a super-stratum of well-seasoned Parbeck stone, newly felled and fitted; on the third, a specimen of wood paving, patented by Mr. John Perring; and on the fourth, a solid flag pavement of granite. Excepting their singular juxtaposition in such a place, there is nothing peculiar in the construction of three out of these four competitive platforms; but in the other, the specimen of wood paving, there is something new, and is assumed to be peculiarly applicable for the purpose intended. This wood paving has been laid down under the inspection of the superintendent to the London Wood Paving Company, and is formed of blocks six inches deep, with surfaces six inches by three, so cut that all of them incline towards the parapet and present the vertical grain of the wood to the recoil of the gun. The blocks are dovetailed together in an entire mass, upon the most perfect bonding principle, and are made of Scotch fir, which, after having been cut to the requisite form, has been saturated with chloride of zinc, as a preservative, according to the system patented by Sir W. Barnett, and now so extensively used in the Royal Dockyards. The figures and proportions of the blocks, as well as the mode of connecting them, differ very materially from the Count de Lank's wood paving, and the surface is quite uniform. The comparison of cost is, of course, a question of some consideration; but this, we understand, is pretty well ascertained, the asphaltum and wood paving being about equal, the Parbeck stone some 40 per cent. dearer, and the granite more than twice the cost of the Parbeck. That consideration, however, should merge into the more important one of relative resistance to wear and tear, and violent percussion, and of safety in action. In the latter case, at least, the wooden platform must be preferable.—*Plymouth Times*.